Resources for You:

The HSEES program can provide education and training to your school. The program can provide assistance in creating evacuation or contingency plans, and safety tips to prevent injuries. Your school can request presentations, fact sheets, or reports by calling the HSEES program at (801) 538-6191, or by visiting our Web site at:
http://health.utah.gov/epi/enviroepi/activities/hsees/hsees.htm

Questions on OSHA 1910 regulations for chemical storage can be answered by Utah's Occupational Safety and Health. You can call their consultation services at (801) 530-6855 or visit their Web site at: http://www.uosh.utah.gov/

The EPA can serve as a resource for chemical safety in schools. For more information on the "Schools Chemical Cleanout Campaign" visit their Web site at:
http://www.epa.gov/SC3/cleanout.htm

The National Institute for Occupational Safety and Health (NIOSH) offers the Safety Checklist Program for Schools to help comply with Federal or State Occupational Safety and Health Administration regulations. This program can be a resource for establishing and implementing evacuation plans, and safety programs. This information may be found at their Web site:
http://www.cdc.gov/niosh/docs/2004-101/

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Utah Department of Health, Office of Epidemiology/HSEES
P.O. Box 142104, Salt Lake City, Utah 84114-2104
Louise Saw, BS, CHES, HSEES Coordinator
Email: Lsaw@utah.gov
Phone: (801) 538-6191
Fax: (801) 538-6564

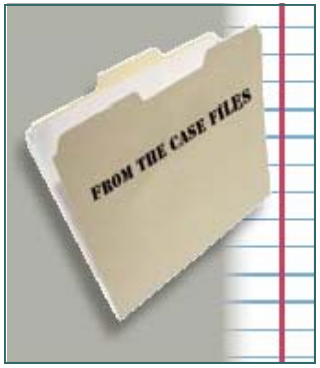
ATSDR

Utah Department of Health

Chemical Releases in Schools

Are You Prepared for 'Unplanned Experiments'?

Chemical releases, whether in schools or elsewhere, rarely occur on a convenient day or time. The highlighted examples illustrate common factors that are often the underlying causes of chemical incidents and injuries in schools:



- It was first period on a Friday morning when a student intentionally tossed a jar containing hydrochloric acid and other chemicals onto the entry way floor of the science classroom. Irritating acid vapors were released into the school and officials ordered the evacuation of over 100 students and staff.
- At 8:30 on a Thursday morning, a school maintenance employee poured liquid chemicals into the school swimming pool and failed to turn on the circulation pumps to mix the chemicals. Chlorine gas was released into the pool facility, injuring five people and causing the pool to be closed for the rest of the day.
- On another Thursday morning, a heated water pipe for the air conditioning and heating system suddenly burst, and 1,600 gallons of an ethylene glycol-based fluid soaked into the carpet of several classrooms and part of a hallway. The children and staff were evacuated to another part of the school for two days.
- On yet another Thursday morning, over 700 students were evacuated from a Utah school when mercury was discovered on the parking lot and sidewalk. The school was temporarily shut down and environmental sampling was performed.

Common factors underlying these incidents include: Improper chemical storage, unsafe handling practices, not following proper procedures, and equipment failures.

What Can Schools Do?

The Utah Department of Heath participates in the Hazardous Substances Emergency Events Surveillance (HSEES) Program funded by the Agency for Toxic Substances and Disease Registry. Information regarding spills and releases of hazardous substances are reported to the HSEES program. The reported data are analyzed and risk factors are determined. Prevention strategies are developed to minimize the risk of exposure to the public when/if hazardous releases occur.

The goal of HSEES is to reduce the injury and death that result from hazardous substance events, which are experienced by first responders, employees, and the general public.

Schools have the potential for chemical releases that may impact many students and school employees. This pamphlet is designed to provide an overview of practices that can prevent chemical releases in schools. The following strategies may be considered and adopted by school administrators, safety specialists, and nurses to control many preventable chemical events.

Prepare Ahead to Prevent Chemical Incidents and Exposures

Identify where chemical health and safety incidents might occur on your school's campus:

-store rooms
-nurses' offices
-motor pools (bus barns)
-science and art classrooms
-lawn care and maintenance buildings
-vocational and agricultural shops
-photography labs
-custodial closets
-kitchens
-swimming pools

Prevention Practices

1– Ensure appropriate health and safety training and work practices for staff and students who use chemicals:

Examples of preventive measures:

- Store hazardous chemicals securely in well-ventilated and lit areas: and in tightly closed, properly labeled containers.
- Avoid the combination of incompatible chemicals.
- Avoid the use of flammable chemicals near open ignition sources.
- Perform periodic maintenance checks on vessels and equipment that contain hazardous chemicals.

2– Develop campus-specific contingency plans and emergency procedures for staff and students in the case of chemical events:

Examples of preventive procedures:

- Utilize resources (see back page of pamphlet) to develop and practice regular evacuation drills with faculty and students.
- Practice "shelter-in-place" drills with faculty and students.
- Compile a chemical event notebook that might contain emergency checklists and phone contacts; chemical inventories; and material safety data sheets (MSDS).

3– Maintain policies and practices for chemical use and control on school grounds:

Examples of preventive practices:

- Ensure that proper timing and ventilation practices are considered when chemicals like pesticides, paints, and floor strippers are applied.
- Identify and properly dispose of waste or old chemicals that have been in storage for an unknown period of time.
- Enforce policies on improper possession or use of chemicals when observed on school grounds; common items may include liquid mercury, pepper spray, or cans of spray paint.
- Substitute equipment that does not use mercury when replacement purchases are made. Examples: thermometers, blood pressure cuffs, or electrical equipment.